

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously Presented) A drawing management and display device for displaying digital information of a system drawing, showing an entire system having a plurality of information items, within a desired display time, said drawing management and display device comprising:

a reference unit configured to: reference a total display time required for displaying said system drawing, determine a plurality of different display time priority levels each having a different display time which is shorter than said total display time, and to store in memory said system drawing as a plurality of sub-drawings each representing the same area of said system drawing and having a different number of said plurality of information items which make up said entire system such that display of each of said sub-drawings can be accomplished within a different said different display time, said sub-drawings being stored with respective priorities each of which represents an ability to display the sub-drawing within a different said different display time;

a selective display designating unit configured to automatically select one of said sub-drawings stored in the memory on a basis of the priority thereof in order to accomplish display within said desired display time; and

a display unit configured to display selected said sub-drawings within said desired display time in response to said selecting operation of said selective display designating unit.

2. (Original) A drawing management and display device according to claim 1, wherein at least one of said sub-drawings includes all of the information items which make up said same area of said system drawing.

3. (Original) A drawing management and display device according to claim 1, wherein all of said sub-drawings show said information items with the same magnification.

4. (Original) A drawing management and display device according to claim 1, wherein each of the sub-drawings shows information items of a different type from the information items shown on all sub-drawings of a lower priority.

5. (Original) A drawing management and display device according to claim 4, wherein the ability to display a sub-drawing within a desired display time is determined by the number and type of information items included in the sub-drawing.

6. (Previously Presented) A drawing management and display device according to claim 1, wherein said entire system is a gas supply pipe-laying system, a water supply pipe-laying system, or a gas and water supply pipe-laying system.

7. (Previously Presented) A drawing management and display device according to claim 1, wherein said entire system is an electric power wiring system, a telephone wiring system, or an electric power and telephone wiring system.

8. (Original) A drawing management and display device according to claim 1, wherein said entire system is a machine designating system.

9. (Original) A drawing management and display device according to claim 1, wherein said entire system is a road traffic information map.

10. (Original) A drawing management and display device according to claim 1, wherein said plurality of sub-drawings which represent the same area of said system drawing include at least three sub-drawings.

11. (Cancelled)

12. (Previously Presented) A drawing management and display device according to claim 1, wherein said selective display designating unit is configured to: store a table of values including indicators of respective areas of said system drawing and a priority designated for each respective area, and select a sub-drawing of that area designated by the priority in said table of values, responsive to an indicator of an area of said system drawing.

13. (Previously Presented) A drawing management and display device according to claim 12, further including an input unit configured to allow editing said table of values to change the priority designated for a respective area of said system drawing.

14. (Previously Presented) A drawing management and display device for managing divided facility drawings having the same magnification of an entire facility as digital information, said drawing management and display device comprising:

a reference unit configured to: reference a total display time for displaying said system drawing, determine a plurality of different display time priority levels each having a different display time which is shorter than said total display time, and store into memory divided facility drawings with respective priorities each of which represents an ability to display a desired facility drawing within a different said different display time when combining at least selected ones of features of said divided facility drawings;

a drawing inputting unit configured to allow editing of said divided facility drawings stored in said first means;

a data inputting unit configured to allow inputting attribute information to be stored in the first means;

a temporary store unit configured to: temporarily store said divided facility drawings stored in said reference unit and temporarily store said divided facility drawings given from said drawing inputting unit; and

a display unit configured to display both said divided facility drawings stored in said temporary store unit, and said attribute information.

15. (Previously Presented) An image data display method comprising a step of:

displaying on a display screen, a respective predetermined three-dimensional shape to represent each image of a drawing to be displayed such that a data amount of said image is represented by a length in a predetermined one-dimensional direction of said three-dimensional shape, wherein images belonging to a same predetermined group are each displayed on the display screen in the form of the predetermined three-dimensional shape and in a form of an icon in such a manner that an accumulated data amount of said images belonging to the same predetermined group is represented by an accumulated length in the predetermined one-dimensional direction.

16. (Previously Presented) An image data display method according to claim 15, wherein the three-dimensional shape is a rectangular parallelepiped or a cube.

17. (Previously Presented) An image data display method according to claim 15, wherein the predetermined one-dimensional direction of said predetermined three-dimensional shape is a direction at least partially in a depth of the display.

18. (Previously Presented) An image data display method according to claim 15, wherein the icon is more particularly an icon for retrieving the images belong to the same predetermined group.

19. (Cancelled)

20. (Previously Presented) An image display method comprising the step of:
displaying on a display screen, a respective predetermined three-dimensional
shape and icon to represent images belonging to different predetermined groups of a
drawing to be displayed, such that an accumulated data amount of said images
belonging to a same predetermined group is represented by an accumulated length
in a predetermined one-dimensional direction of said three-dimensional shape
associated with said same predetermined group, and such that the respective
predetermined three-dimensional shapes and icons for said different predetermined
groups are displayed separately on said display screen.

21. (Previously Presented) An image data display method according to claim
20, wherein the respective predetermined three-dimensional shapes and icons for
said different predetermined groups are more specifically displayed separately in a
second one-dimensional direction which is different from said predetermined one-
dimensional direction.

22. (Previously Presented) An image data display apparatus comprising:
an image data amount calculation unit which obtains an accumulated data
amount for images belonging to a same predetermined group; and
an icon three-dimensional display processing unit which displays on a display
screen, a respective predetermined three-dimensional shape to represent each
image of a drawing to be displayed such that a data amount of said image is
represented by a length in a predetermined one-dimensional direction of said three-
dimensional shape, wherein images belonging to the same predetermined group are

each displayed on the display screen in the form of the predetermined three-dimensional shape and in a form of an icon in such a manner that an accumulated data amount of said images belonging to the same predetermined group is represented by an accumulated length in the predetermined one-dimensional direction.

23. (Previously Presented) An image data display apparatus according to claim 22, wherein said icon three-dimensional display processing unit displays the icon in a shape of a rectangular parallelepiped or a cube.

24. (Previously Presented) An image data display apparatus according to claim 22, wherein the predetermined one-dimensional direction of said predetermined three-dimensional shape is a direction at least partially in a depth of the display.

25. (Previously Presented) An image data display apparatus according to claim 22, wherein the icon is more particularly an icon for retrieving the images belong to the same predetermined group.

26. (Previously Presented) A drawing management and display device for displaying digital information of a system drawing, showing an entire system having a plurality of information items, within a desired display time, said drawing management and display device comprising:

a reference unit configured to: reference a total display time required for displaying said system drawing, determine a plurality of different display time priority levels each having a different display time which is shorter than said total display time, and store into memory said system drawing as a plurality of sub-drawings each representing the same area of said system drawing and having a different number of said plurality of information items which make up said entire system such that display of each of said sub-drawings is accomplished within a different said different display time, said sub-drawings being stored with respective priorities each of which represents an ability to display the sub-drawing within a different said different display;

a selective display designating unit configured to automatically select one of said sub-drawings stored in the memory on a basis of the priority thereof in order to accomplish display within said desired display time; and

a display unit configured to display selected said sub-drawings within said desired display time in response to said selecting operation of said selective display designation unit;

wherein said display unit is further configured to display a three-dimensional retrieval icon for respective sub-drawings, the amount of data in a respective sub-drawing being indicated by a dimension of each respective displayed retrieval icon.